

ago by a writer on the climate and vegetation of the fortieth degree of North latitude,* who, in concluding his essay, says:

“But there will doubtless be an amelioration in this particular,” (severity of cold) “when Canada and the United States shall become thickly peopled and generally cultivated. In this latitude, then, like the same parallels in Europe at present, *snow and ice will become rare phenomena, and the orange, the olive, and other vegetables of the same class, now strangers to the soil, will become objects of the labour and solicitude of the agriculturist.*”

Had this writer extended his inquiries a little further, he might have found that the region of Oregon, lying west of the Rocky Mountains, though as yet in a primitive state of nature, has a climate even milder than that of highly cultivated Europe in similar latitudes. And again, China, situated precisely under the same conditions as the United States in regard to the sea, though long since subjected to the highest state of agricultural improvement, possesses a winter climate as rigorous, and some assert even more so, than that of the United States in similar latitudes.

There are many points considered by our author which it would have given us pleasure to have noticed more particularly. We have endeavoured to follow him through the main course of his investigation, and when it is considered that the facts and views he presents are original, and the results of years of observation and severe mental toil, upon subjects essentially connected with medical inquiries, we hope we shall not be considered as having gone out of the track of our professional readers, or trespassed too much upon their valuable time.

G. E.

ART. XII.—*A System of Midwifery, with numerous wood cuts.* By EDWARD RIGBY, M. D., &c., with Notes and additional illustrations. Philadelphia, Lea & Blanchard, 1841: 8vo. pp. 491.

We know of no series of treatises, devoted to a consideration of the different branches of medical science, the character of which has been so uniformly sustained as that which composes the several volumes of Tweedie's Library of Medicine. If the successive portions of the work do not actually exceed in value those which preceded, they, at least, in no instance sink below them;—while the whole, so far as published, presents a very able, and generally speaking, full and accurate exposition of the actual condition of the healing art, as well in relation to its principles as to its practical details.

The volume before us, which embraces the obstetrical department of the Library, will command a high rank among the numerous systems of midwifery that have appeared within the few past years, bearing the names of some of the most distinguished cultivators of the obstetric art.

While the author has made free use of the labours of his predecessors and contemporaries, he has not confined himself to the humble task of a

* Remarks on the Climate and Vegetation of the fortieth degree of North latitude. By Richard Sexton, M. D., published in the 5th volume of this Journal; a paper containing many highly interesting observations upon the Climatology of the United States.

mere compiler, but has skilfully woven into a continuous narrative those principles and rules of practice in the department of which he treats, that have become the common property of the profession, giving, at the same time, to the facts and directions he details a sanction and authority derived from his own personal experience and observation.

The great object at which Dr. Rigby appears to have aimed, is perfect accuracy, with as great a degree of conciseness as was compatible with a clear exposition of every important point connected with his subject; and in the attainment of this, he has been enabled to present to the profession a work, equally valuable as a manual for the use of the obstetrical student, and a compendium of the experience of the whole profession by which the practitioner may compare and correct the results of his own observations.

Notwithstanding the term Midwifery strictly speaking implies only the proper management of the process of parturition, Dr. Rigby extends it, in common with the major portion of modern writers, to "the knowledge, and art of treating a woman and her child during her pregnancy, labour, and the puerperal state."

The work commences with a short anatomico-physiological view of the structure, form, arrangement and functions of those parts and organs which are more or less directly concerned in the important processes of pregnancy and parturition. Then follow in succession the diagnosis and course of healthy pregnancy, and its various diseases, terminating with the subject of healthy parturition, and its treatment; parturition properly speaking comes under two separate heads, *eutocia* and *dystocia*, the one signifying natural or favourable labour, the other unnatural, faulty or unfavourable labour; and lastly, a short account is presented of some of the more important diseases which occur to the mother during the first month after parturition.

The first part, as is stated above, treats of the anatomy and physiology of utero-gestation, embracing a very accurate and intelligible description of the structure, axes and diameters of the female pelvis, the anatomy of the female organs of generation, the phenomena consequent upon impregnation, and the history and development of the ovum.

Without entering into a consideration of the various speculations that have been advanced by distinguished writers, in relation to the physiology of utero-gestation, the author presents a clear, concise, and instructive view of every well established fact connected with this interesting and important subject.

In regard to the corpora lutea, in relation to which some misconception would appear still to exist, the following remarks of Dr. Rigby may not be without instruction to the few who continue to doubt their dependence upon successful impregnation.

"A Graafian vesicle cannot be converted into a corpus luteum except by actual and effective sexual intercourse; and the strange and discrepant accounts which have every now and then been published, even by authors of considerable repute, of corpora lutea having been found in the ovaries of virgin and even newly born animals, merely prove that the true characteristics of the corpus luteum were not sufficiently known. The irregular cysts, cavities or depositories of whitish or yellowish structure which are frequently found in the ovary, independent of impregnation, and which have been improperly enough called virgin corpora lutea, present points of difference so marked, that they can scarcely be mistaken by an experienced eye. The angular cavity opening externally, the

stellated, radiated, cicatrix-like appearance, which a section of the corpus luteum presents, its soft and delicate structure as described by Dr. Hunter, and, above all, its vascularity, and the facility with which its vessels can be injected from the general tissue of the ovary, are characters only found in a true corpus luteum. Virgin corpora lutea frequently occur under circumstances of disease, especially those of a tubercular character. They frequently appear as distinct cysts, the walls of which are semi-cartilaginous; at other times, they seem to be nothing more than a coagulum of blood: they seldom project much from the ovary, and in no instance have they the peculiar structure of the corpus luteum, nor the external cicatrix, nor are they capable of being injected."

"When pregnancy is over, the corpus luteum gradually diminishes and disappears. Dr. Montgomery states that, 'the exact period of its total disappearance I am unable to state, but I have found it distinctly visible so late as at the end of five months after delivery at the full time, but not beyond this period.' Hence it will be seen, that in a few months after the termination of pregnancy, all traces of the corpus luteum are lost, and that, therefore, it will be impossible to decide as to how frequently impregnation has taken place, merely by examining the ovaries as has been supposed. There is another point to which Dr. Montgomery has alluded, which is well worthy of notice: in mentioning the fact, that a vesicle may contain two ova, and thus a woman be delivered of twins, and yet there be but one corpus luteum, he observes, that 'the presence of a corpus luteum does not prove that a woman has borne a child, although it would be a decided proof that she had been impregnated, and had conceived, because, it is quite obvious that the ovum after its vivification may be, from a great variety of causes, blighted and destroyed, long before the fœtus has acquired any distinct form. It may have been converted into a mole or hydatids: thus, however paradoxical it may at first sight appear, it is nevertheless true, that a woman may conceive and yet not become truly with child, a fact already alluded to, as noticed by Harvey; but the converse will not hold good. I believe no one ever found a fœtus in utero without a corpus luteum in the ovary; and that the truth of Haller's corollary, 'nullus unquam conceptus est absque corpore luto,' remains undisputed.'"

The second part of the work treats of natural pregnancy and its deviations. The chapter on the signs of pregnancy exhibits much good sense, commendable caution, and sound discrimination.

The difficulty, and at the same time, the great importance, in many cases, of arriving at a correct diagnosis of pregnancy are clearly and fully stated; while each of the phenomena consequent upon utero-gestation, as well the general effects it produces upon the system, as those changes and phenomena which are peculiar to this state, are individually described, and the absolute and relative importance of each carefully examined. The entire chapter is one of great merit.

After showing the insufficiency of the major portion of those phenomena usually esteemed as indicative of pregnancy, the author remarks,

"In reviewing what has now been stated respecting the diagnosis of pregnancy, it will be observed, that we have enumerated four symptoms, which must be looked upon as perfectly diagnostic of this condition, and in the accuracy and certainty of which we may place the fullest confidence: two may be recognised at an early period by means of auscultation, viz. the sounds produced by the movements of the fœtus, and by the pulsations of its heart; the two others are not appreciable until a later period, and are afforded by manual examination, viz. the being able to feel the head of the fœtus, per vaginam, and its movements through the abdominal parietes. The next in point of value after these are the changes in the os and cervix uteri, those connected with the formation of the areola in the breasts, and, at a somewhat later period, the sound of the uterine circulation; changes which, although they cannot separately be entirely de-

pended upon, are nevertheless symptoms of very great importance in the diagnosis of pregnancy."

"Two other signs of pregnancy have also been mentioned, viz., the appearance of a peculiar deposit in the urine as described by M. Nauche, or rather by Savonarola, (*Montgomery, Op. Cit.*, p. 157,) and the purple or violet appearance of the mucous membrane lining the vagina, and os externum, as described by Professor Kluge of the Charité at Berlin, and by MM. Jacquemin, Parent Duchatelet, &c. of Paris. With regard to the first, which is an old popular symptom of pregnancy, there is too much variety in the appearances of the urine, depending on general health, diet, temperature, &c., to enable us to place much confidence in any change of this sort."

"The purple colour of the vaginal entrance appears, from the extensive experience of the above-mentioned authors, to be a pretty constant change produced by the state of pregnancy; it probably occurs at a very early period. How far a similar tinge is produced by the state of uterine congestion immediately before a menstrual period, we are unable to say; at any rate, the character of the examination itself must ever be sufficient to preclude its being practised in this country."

The ensuing chapter on the treatment of pregnancy, presents a concise, but judicious view of the remedies adapted to the removal of those disturbances of function and other affections so often consequent upon uterogestation—and which, though in the ordinary run of cases they are very readily subdued, occasionally cause great distress to the patient, and in their management, demand no little skill and caution on the part of the practitioner.

The signs of the death of the fœtus are next considered, and a very lucid and able exposition is given of the phenomena resulting from the cessation of life in the child, as they occur before and during labour, with their individual and collective value. As Dr. Rigby very justly remarks—

"There are few circumstances more painful to the feelings of an accoucheur, than the uncertainty as to whether the child be alive or dead, in a labour where the passage of the head is rendered unusually difficult or dangerous for the mother, even with the aid of the forceps; whether the difficulty be produced by want of proportion between the head and pelvis, unusual rigidity of the os uteri, &c. Could he assure himself that it was alive, he would feel justified in either trusting still longer to the efforts of nature, or in applying the forceps, even although he knows that the delivery cannot be effected without considerable difficulty and suffering: whereas, if he could once feel satisfied that the child had ceased to exist, he would have recourse to perforation, for the purpose of diminishing the size of the head, and thus releasing the mother from the dangers of her situation."

The following paragraph proposes an important consideration, which should be duly weighed by every practitioner of midwifery.

"The increasing success which has attended the Cæsarean operation of late years, adds still more to the importance of having the signs of the child's life or death in utero carefully investigated and understood; for under such circumstances, it becomes a most serious question whether we are justified in destroying the life of the fœtus by perforation, when we might in all probability have saved it by resorting to another means of delivery, which, formidable as it is, is now infinitely less so than it was in former times. It becomes a question whether we ought not, in certain cases, to adopt the same indications for performing the Cæsarean operation, as are used upon the continent, and apply it not only to those cases where the child cannot be delivered *per vias naturales*, but also to those cases of minor pelvic obstruction, where, if we could feel sure of the child's death, we should have recourse to perforation. Under circumstances of

this nature, the question becomes one of fearful responsibility, the painfulness of which is not a little increased by the uncertainty as to whether the child be alive or not."

The chapters on mole pregnancy, extra-uterine pregnancy, and retroversing of the uterus, present a very comprehensive and admirable exposition of the actual state of our knowledge in relation to the causes, diagnostic symptoms and proper management of these cases. It would be difficult to refer to any work in which will be found a more accurate and, at the same time, so clear and definite an account of either of the foregoing subjects, more especially one presented in so condensed a form as that in the volume before us.

The duration of pregnancy is the subject of chapter seven. The grand question which this subject involves, whether, namely, a female can really go beyond the common period of gestation, receives that attention from the author which its importance merits. After pointing out the ordinary sources of error in computing the duration of pregnancy, especially the assumption of various and uncertain data by which to determine the moment of conception, Dr. Rigby, from various considerations, concludes that the period of forty weeks, or ten lunar months, is most generally that of gestation in the human female; although for certain reasons connected with his view of the causes which determine the period at which labour usually comes on, he is inclined to believe it may occasionally fall short or exceed somewhat this period.

"It is now," he remarks, "ten years ago since we first surmised, that 'the reason why labour usually terminates pregnancy at the fortieth week, is from the recurrence of a menstrual period at a time during pregnancy, when the uterus, from its distension and weight of contents, is no longer able to bear that increase of irritability which accompanies these periods without being excited to throw off the ovum.'

"Under the head of premature expulsion, we shall have occasion to notice the disposition to abortion, which the uterus evinces at what, in the unimpregnated state, would have been a menstrual period: for some months after the commencement of pregnancy, a careful observer may distinctly trace the periodical symptoms of uterine excitement coming on at certain intervals, and it may be easily supposed that many causes for abortion act with increased effect at these times. Where the patient has suffered from dysmenorrhœa before pregnancy, these periods continue to be marked with such an increase of uterine irritability as to render them for some time exceedingly dangerous to the safety of the ovum. Even to a late period of gestation, the uterus continues to indicate a slight increase of irritability at these periods, although much more indistinctly; thus, in cases of hemorrhage before labour, especially where it arises from the attachment of the placenta to the os uteri, it is usually observed to come on, and to return at what, in the unimpregnated state, would have been a menstrual period. We mention these facts as illustrating what we presume are the laws on which the duration of pregnancy depends, and also as being capable of affording a satisfactory explanation of those seeming over-term cases, which are occasionally met with.

"From this view of the subject it will be evident, that the period of the menstrual interval at which conception takes place, will in great measure influence the duration of the pregnancy afterwards; that where it has occurred immediately after an appearance of the menses, the uterus will have attained such a dilatation and weight of contents by the time the ninth period has arrived, that it will not be able to pass through this state of catamenial excitement without contraction, or, in other words, labour coming on; hence it is that we find a considerable number of labours fall short of the usual time, so much so, that some authors

have even considered the natural term of human gestation to be 273 days, or 39 weeks; for a somewhat similar reason we can explain why primiparæ seldom go to the full term of gestation, the uterus being less capable of undergoing the necessary increase of volume in a first pregnancy than it is in succeeding ones. On the other hand, where impregnation has taken place shortly before a menstrual period, the uterus, especially if the patient has already had several children, will probably not have attained such a volume and development as to prevent its passing the ninth period, without expelling its contents, but may even go on to the next before this process takes place; it is in this way that we would explain the cases related by Dr. Dewees and Dr. Montgomery. We are aware, that under such a view of the subject, the duration of time between the catamenial periods of each individual should be taken into account, some women menstruating at very short and others at very long intervals; but although this will affect the number of periods; during which the pregnancy will last, it will not influence the actual duration of time, as this will more immediately depend upon the size and weight of contents which the uterus has attained."

A very excellent and instructive chapter on the premature expulsion of the fœtus—its causes, symptoms, and effects, together with the prophylactic and remedial measures to be pursued, closes the second part.

The *third* part treats of Eutocia, or natural parturition.

The first chapter contains a very full and admirable description of the coming on—the different stages—progress and termination of a case of natural labour—in the preparation of which the author acknowledges his frequent indebtedness to the works of Wigand (*Geburt des Menschen*), and of Hohl (*Die geburtshülflliche Exploration*). We are acquainted with no description of the phenomena of natural labour so well adapted for the instruction of the student—or one from an attentive perusal of which the young obstetrical practitioner will be able to glean so many useful hints.

A very able chapter succeeds on the treatment of natural labour. The directions, in the highest degree judicious in themselves, are detailed with sufficient minuteness and clearness, and enforced by an exposition of the reasons upon which they are severally based. Few practitioners of the obstetric art remote from our larger cities, even though they may have devoted years to the profession, will, we suspect, be found who will not derive much instruction from a careful study of this excellent chapter.

In the ensuing chapter is considered the all important subject, the mechanism of parturition, without a thorough acquaintance with which, no one is competent to take charge of any case of labour—this being the only true basis upon which the principles of practical midwifery can be founded.

"Unless," as the author correctly remarks, "a practitioner be thoroughly acquainted with every step in the mechanism of a natural labour, how can he be expected to understand and detect with certainty any deviation from its usual course, still less make use of those means which may be required under the peculiar circumstances of the case; and yet strange to say, there are few subjects which, generally speaking, have excited so little attention, and upon which such incorrect opinions have prevailed even up to the present time."

Dr. Rigby has endeavoured, in the chapter before us, to render this unquestionably difficult subject as clear as possible, and to divest it of those erroneous notions, still entertained by many, which have taken their rise in closet speculations rather than from a careful examination of the actual manner in which the child presents and passes through the pelvis and soft parts during labour. The chapter is a highly interesting and instructive one.

Part the *fourth* is devoted to a consideration of midwifery operations. The first chapter treats of the forceps, with the indications for their use, and the rules for their application. The second chapter is on the operation of turning, the indications for its employment—the circumstances most favourable for its performance, and directions as to the proper manner in which it should be effected. Both chapters exhibit the usual characteristics of our author as a systematic writer, condensation with great clearness; while the practical directions detailed in them are sufficiently explicit, and throughout highly judicious.

The Cæsarean operation is considered in the third chapter. This is one of the few subjects connected with the principles and practice of midwifery, in relation to which the author has failed to give a satisfactory view of the present state of our knowledge. His account of the indications for the performance of the operation are certainly any thing but clear and precise, and must leave the reader in great doubt as to the value of the operation, or the exact circumstances under which its performance is warranted. While he would appear inclined to admit of its propriety as a means of saving the life of the child as well as that of the mother, he nevertheless, deterred probably by its generally unsuccessful termination in England, describes the circumstances under which it becomes the duty of the surgeon to perform the Cæsarean section to be those in which “the pelvis is so narrow that the child cannot be brought even piecemeal through the natural passage,” in which case, even if the child be dead, the operation becomes unavoidable.

The fourth chapter treats of artificial premature labour. This Dr. R. considers as “perhaps the greatest improvement in operative midwifery since the invention and gradual improvement of the forceps.”

The operation consists in inducing labour artificially, at such a period of pregnancy as that the child shall have attained a sufficient degree of development to support its existence after birth, and yet be so small, and the bones of its head so soft, as to be capable of passing through the contracted pelvis of its mother. It is resorted to for the purpose of giving birth to a living child, under circumstances of pelvic contraction, where either the mother must have been exposed to the danger and sufferings of the Cæsarian operation, or the infant to the certainty of death by perforation, or at least where the labour must have been so severe and protracted, as to have more or less endangered the lives of both.

We are happy to find so distinguished an authority as Dr. Rigby, bearing so decided a testimony in favour of the production of premature labour, in those cases in which the delivery of the child at the full period is either impossible or attended with imminent danger to both mother and child. In his estimate of the practicability and entire safety of the operation, he is sustained by some of the most distinguished of the German obstetricians.

“Professor Kilian, in his work on operative midwifery, has collected the results of no less than 161 cases of artificial premature labour; of these, 72 occurred in England, 79 in Germany, 7 in Italy, and 3 in Holland: of these cases, 115 children were born alive, and 46 dead: of the 115 living children, 73 continued alive and healthy; 8 of the mothers died after the operation; but of these, 5 were evidently from diseases which had nothing to do with the operation.

“One great encouragement,” Dr. R. remarks, “in cases requiring this operation is the fact, that in every successive pregnancy the uterus is more easily excited to premature action; and in some cases where it has been induced several times, it has at length, as it were, got so completely into the habit of retaining its con-

tents only up to a certain period, that labour has come on spontaneously, exactly at the time at which in the former pregnancies it had been artificially induced.”

A very clear account is given in the chapter before us, of the circumstances under which the operation is warranted, the period of pregnancy most favourable for its performance, and of the proper manner of performing it.

The next chapter treats of perforation, the cases in which it is indicated, and the mode of operating—and concludes with a brief notice of embry-
ulcia.

Part the *fifth* is devoted to a consideration of *Dystocia* or abnormal parturition—or those labours which either cannot be completed by the natural powers destined for that purpose, or at least, not without injury to the mother or child.

Pursuing the arrangement adopted by Professor Naegelé, Dr. Rigby divides abnormal parturition into two classes.

“1. Labours that are difficult or impossible to be completed by the natural powers.

“2. Labours which are rendered faulty without obstruction to their progress.”

The first may depend upon a faulty condition of the expelling powers, or without any anomaly in this respect, upon the faulty condition either of the child or of the parts through which it has to pass.

“As it respects the child they may arise from, 1, malposition; 2, faulty form, and size of the child; 3, faulty condition of the parts which belong to the child on the part of the mother;—

“From a faulty condition, 4, of the pelvis; 5, of the soft passages; 6, of the expelling powers.”

“The second condition where labour is rendered dangerous for the mother or her child, without any obstruction to its progress, may arise from—1. Following too rapid a course. 2. Prolapsus of the umbilical cord. 3. From accidental circumstances, which render the labour dangerous, viz. convulsion, syncope, dyspnœa, severe and continued vomiting, hemorrhage, &c.”

In the twelve chapters devoted to a consideration of each of the above species of dystocia, will be found, accurately detailed, all the more important facts, derived from the experience of the most authoritative writers necessary to a correct understanding of the several causes, by which the natural course and termination of labour may be impeded or prevented, with the means best adapted to prevent, remove, or lessen the difficulty—or to effect the delivery of the child without endangering the life of both it and its mother. The author's account of abnormal labour, condensed as it is, will be found perfectly explicit—and marked throughout by a sound and discriminating judgment—founded evidently upon a careful study of the subject under circumstances peculiarly favourable to the acquisition of sound practical views.

In considering the treatment of that species of dystocia in which the propulsive powers of the uterus are defective, Dr. Rigby remarks, that such a state of uterine inactivity as will warrant the use of such remedies as have the power directly to excite the uterine contractions is extremely rare, and he earnestly warns young practitioners against too readily concluding that it is present. They will find, he remarks, that the more carefully they investigate such cases, the less frequently will they require such remedies. In using the *secale cornutum*, he gives the preference to the powder. Borax, according to him, is also another remedy which appears

to possess a peculiar power in exciting the activity of the uterus; although it is scarcely ever used for such a purpose in England, its effects upon the uterus have been long known in Germany; and in former times, both it and the *secale cornutum* entered largely into the composition of the different nostrums, which were used for the purpose of assisting labour. Dr. R. has combined these two medicines, with, as he states, the best effects; he generally gives them in the following manner:—℞. *Secalis cornuti* ℥j-ij; *sodæ subborat.* gr. x; *aq. cinnamomi* ℥jss.—m. fiat haust. Cinnamon, which is a remedy of considerable antiquity, has also a similar action upon the uterus, although to a less degree.

“Our own conviction with regard to the use of these remedies,” adds Dr. R., “is, that they are seldom required *during* labour, except in nates or footling presentations, or in cases of turning, where the head is about to enter the pelvis, and where, at this critical moment, the action of the uterus is apt to fail, when it is important to the safety of the child that there should be brisk pains to force the head through the pelvis and internal parts with sufficient rapidity. The chief value of these remedies is for the purpose of exciting uterine contraction *after* labour, and thus to promote the safe expulsion of the placenta, where there is a disposition to inertia uteri, and insure the patient against hemorrhage. Where the contractile power of the uterus is so enfeebled that it becomes nearly powerless, we deem it much safer and better to apply extractive force to the head by means of the forceps, and thus overcome the natural resistance of the soft parts, to using medicines which excite uterine action, and thus stimulate the exhausted organs to still farther efforts.”

A very sensible chapter is given on the causes, diagnosis, symptoms and treatment of inversion of the uterus.

In the eleventh chapter of this division of the work, Dr. Rigby treats of puerperal convulsions. The description of the different forms of convulsions that occur previous to, during and subsequent to labour are all ably described—the facts bearing upon their pathology clearly stated, and the remedial measures which experience has shown to be best adapted to their prevention and cure accurately detailed.

Puerperal fevers is the subject of the thirteenth chapter. The author's very full and able account of these affections, which are certainly, as he truly remarks, the most to be dreaded of any to which a lying-in woman is exposed, constitutes unquestionably one of the most interesting and important portions of the excellent volume before us.

After an examination into the nature and varieties of puerperal fever, replete with sound pathological views, calculated to lead to more precise and correct views in regard to the causes and character of the disease, the author proceeds to consider its several forms, under the heads of puerperal peritonitis—uterine phlebitis—false peritonitis—and gastro-bilious—and contagious or adynamic puerperal fevers.

“The *vitiation of the blood*,” Dr. Rigby remarks, “has long been a subject which has excited our deepest interest, and the admirable researches of Dr. Stevens upon the condition of this fluid under the effects of malignant fevers, have tended to disclose the real nature of the diseases under consideration. We have long been convinced that one of the causes of puerperal fever is the absorption of putrid matters, furnished by the coagula and discharges, which are apt to be retained in the uterus and passages after parturition,—a view which has been adopted by Kirkland, C. White, and other older writers. It is with sincere pleasure that we now find ourselves supported by Dr. Ferguson in this opinion.”

“We do not agree with him in supposing that every form of puerperal in-

inflammation is produced by vitiation of the circulating fluids, because in one species of uterine phlebitis, which occurred sporadically, and prevailed a good deal from 1829 to 1832, it was, in our opinion, evidently produced directly by the absorption of putrid matter into the uterine veins and lymphatics, exciting inflammation in these vessels; the same cause, when only carried to a certain extent, produces a local inflammation, which, when affecting the general circulation, is followed by fever—the local and constitutional disturbance arising from the same cause, imbibition or absorption of putrid matter, the one being the local, the other the general effect, but not the one resulting from the other. The doctrine of the vitiation of the blood from its admixture with pus secreted by the lining membrane of an inflamed vein, though very plausible, still requires further confirmation, for it is doubtful if the introduction of pure healthy pus into the circulation produces any of those dangerous effects which result from the introduction of putrid matters, whether purulent, sanious, mucous, &c. It is the introduction of an animal poison generated by putrefaction, which destroys the vitality of the blood, and renders it unfit for maintaining the vital powers.”

Dr. Rigby does not, however, refer the cause of puerperal fever solely to the absorption of putrid matters by the uterine veins and lymphatics, but to the still more pervading and truly epidemic, and contagious action of the miasmata, with which the air that surrounds the patient is charged. The lungs, he remarks, afford a ready and ample means by which effluvia may be conveyed into the circulating current.

Under the inflammatory form of puerperal fever, Dr. R. considers as well that form of acute peritonitis, so ably described by Dr. Locock, which is chiefly produced by the effects of labour, and in the treatment of which the lancet and other antiphlogistic remedies are demanded to a greater or less extent, but also that form which, according to Dr. Ferguson, arises from vitiation of the blood, by the introduction of putrid matter into the circulation, commencing with the symptoms of uterine phlebitis, but terminating invariably, if not stopped at an early period, in peritonitis—a form of the disease which, according to our author, has not only a great disposition to assume a typhoid character, but also to become epidemic.

In this form of the disease Dr. R. directs great caution in the use of the lancet and other depletory remedies. He has become more than ever convinced, from the results of his own experience and other considerations, that it is *not* a remedy which is *always* to be premised before the employment of other remedies, as in cases of simple inflammation of the viscera or serous membranes.

“The only circumstances we apprehend,” he adds, “under which venesection ought to be employed in this form of the disease, are where the pain is constant, without intermission, and where, besides its rapidity, the pulse betrays a degree of wiry resistance to the finger, which can never be mistaken. In this case the blood drawn will show all the usual marks of inflammation, and the relief procured will be proportionably great.”

The doctor directs, in cases of uterine phlebitis, the patient to be placed in such a posture, as to favour the escape of any coagula and discharges, which may have been stagnating in the uterus or vagina; to effect which more completely, a stream of warm water should be thrown up briskly into the uterus. To increase the action of all the excretory functions, and thus, as far as possible, remove the virus, which may have already entered the system, Dr. R. conceives that the administration of calomel in doses of ten grains, combined with James's or antimonial powder, is one of the most effective means we possess. When there has occurred evident abatement

or remission of pain, he directs the calomel to be combined with an equal quantity of Dover's powder in the form of pills; the calomel to be followed in a few hours, or if given over night, in the morning, by a solution of sulphate and carbonate of magnesia. To relieve pain, and promote perspiration, hot lintseed meal poultices are directed to the abdomen—to be continued until the pain has entirely ceased; the vagina being well syringed with warm water, from time to time as occasion requires.

In the sections which treat of gastro-bilious and the contagious or adynamic forms of puerperal fever, will be found a very excellent digest of the present state of our knowledge in relation to their diagnostic phenomena, pathology and treatment.

The propriety of direct depletion in this latter form of the disease has been a question of much dispute among physicians, some insisting upon its early and full employment as essential to the successful treatment of at least the majority of cases, while others proscribe it entirely as not only useless, but decidedly prejudicial. Upon this important point of practice the author makes the following judicious remarks:

“There is no doubt that, wherever the state of the patient will permit it, the lancet should be tried. Where the pulse is quick and small with little power, it is scarcely more than an experiment to ascertain how the system will bear the bleeding: in the worst cases of the adynamic form, uncomplicated by the slightest effort at reaction, the state of collapse at once forbids such an attempt: but in many instances the circulation is merely oppressed, the pulse rises in volume as the depletion proceeds; and where from its feel before the operation we had little hopes of taking away more than five or six ounces, we are often enabled to continue it until a considerable quantity is lost. In other cases frightful exhaustion is the immediate effect, and warn us instantly to discontinue it. The capability of bearing bleeding may be always looked upon as a favourable prognostic, not only because the patient's strength is better than we had perhaps expected, but also because these are precisely the cases where mercury can be used with decided benefit; whether it be the bleeding, which in all probability renders the system more easily brought under the influence of this medicine, we will not stop to consider; at any rate, its effects are not only more easily obtained, but they exert a more decided control over the progress of the disease; the pain abates, the tympanitic abdomen becomes less tense, the pulse slower, fuller, and softer, the tongue moister, and there is a sense of general improvement in the patient's feelings. But in the adynamic form, when present in its greatest intensity, either there is not sufficient time to impregnate the system, or it is less sensible to its effects: at any rate, even if we succeed in producing salivation, little or no improvement follows.”

Phlegmasia Dolens is the subject of the fourteenth chapter. This affection Dr. Rigby attributes to inflammation and obstruction of the main lymphatic trunks leading to the affected limb. He denies that it is invariably dependent upon inflammation of the iliac and femoral veins as maintained by Dr. Lee, and even when phlebitis of these vessels is present, he considers that the production of the disease is to be accounted for by the inflammation spreading to the surrounding fascia or cellular tissue through which the larger lymphatics of the thigh pass in their way to the abdominal cavity.

The causes of the disease Dr. R. considers as of precisely the same character as those of uterine phlebitis; the absorption or imbibition, namely, of putrid matter from the cavity of the uterus.

The treatment recommended is, to apply leeches to the seat of the pain and tension, followed by cold evaporating washes, or even the application of ice over the femoral ring. Internally, calomel is to be administered to such

an extent as to affect the system, and when the local pain has ceased, a plaster of camphorated mercurial ointment over the affected part; when the acute stage of the disease is past, quinine with gentle frictions of the affected limb with the compound camphor liniment.

An account of puerperal mania; the different forms under which it occurs, its causes, symptoms and treatment, closes the volume.

Our very favourable estimate of the value of the present system of midwifery will have been perceived by the remarks already made; we can with great confidence recommend it to the younger members especially of the profession, as a work they will feel inclined frequently to consult. As a text book for the use of the student of the obstetric art we know of none superior.

D. F. C.